

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**REPLY BRIEF**

Applicant:	Bailey, <i>et al.</i>	Docket No.:	ROC920030220US1
Serial No.:	10/624,808	Group Art Unit:	2188
Filed:	07/22/03	Examiner:	DOAN, DUC T.
TITLE:	AUTONOMICALLY SUSPENDING AND RESUMING LOGICAL PARTITIONS WHEN I/O RECONFIGURATION IS REQUIRED		

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir/Madam:

This Reply Brief is submitted to address the examiner's comments in the  
Examiner's Answer dated 10/27/2008.

## **ARGUMENT**

**Issue 1:           Whether claims 9 and 23 are unpatentable under 35 U.S.C.  
§103(a) by Day in view of Tarui and further in view of Kaneko.**

Appellant stands on the arguments made in the Appeal Brief regarding claims 9 and 23. In addition, appellant submits the remarks below to address the examiner's comments in the Examiner's Answer.

### **Claim 9**

The examiner quotes from the Appeal Brief at p. 6 line 21 to p. 7 line 19, then states:

Because the I/O resources are divided/separated to different users, it can be seen that, for example, a first disk device is owned or assigned to a first user and this first disk is not owned or assigned to a second user.

The examiner's language above shows confusion in the examiner's mind regarding what is being assigned and what is being owned. Claim 9 is directed to at least one logical partition that owns the identified I/O resource and at least one logical partition that does not own the identified I/O resource, and the partition manager suspending all of the plurality of logical partitions. The examiner's language relates to resources being owned by users, not logical partitions. The fact a first disk device is owned or assigned to a first user and this first disk is not owned or assigned to a second user does not relate to the ownership of resources by logical partitions. As a result, the examiner's argument misses the mark. As stated in detail in the Appeal Brief, nowhere do any of Day, Tarui or Kaneko teach or suggest suspending all logical partitions, where some of the logical partitions do not own the identified I/O resource.

In the Examiner's Answer, the examiner then quotes from the Appeal Brief at p. 7 line 20 to p. 8 line 24. The examiner then states "based on Appellant's remarks and specification's page 9 lines 15-20, the identified I/O input/output resource can be viewed as an I/O resource being identified for changing/reassigning purposes." The examiner's language conveniently ignores the express limitations in claim 9, which state:

. . . the plurality of logical partitions comprising at least one logical partition that owns the identified I/O resource and at least one logical partition that does not own the identified I/O resource . . .

Appellant's specification at p. 9 lines 15-20 gives examples of I/O resources. However, ownership of those resources is not discussed. As a result, the examiner's arguments in the Examiner's Answer are defective for not addressing all of the limitations in question quoted from claim 9 above.

In the Examiner's Answer, the examiner states:

Appellant further alleges that "While the state data in Day reflects the current allocation of resources to logical partitions, a change in the state data does not require a reconfiguration of an identified I/O resource as recited in claim 1. . . ."; and

The sentence abruptly ends without the examiner addressing this argument, as if the examiner intended to address this argument but left it unaddressed. Appellant stands on the arguments made in the Appeal Brief that a change in the state data in Day does not require reconfiguration of an identified I/O resource as recited in claim 1.

In the Examiner's Answer, the examiner quotes from the Appeal Brief at p. 10 lines 9-28, then goes through a discussion regarding stopping using an I/O adapter and concludes:

. . . thus when the I/O requests not delivered to the current partition the current partition is in “stop using the I/O adapter state.”

Appellant cannot discern from the examiner’s comments in the Examiner’s Answer the relevance of these statements. As stated clearly in the Appeal Brief, there is absolutely no teaching whatsoever in Tarui of inhibiting dispatch of tasks to a logical partition. The partition control program referred to in paragraph [0084] of Tarui, after instructing the OS on the current partition to stop using the I/O adapter, could still dispatch a number of different tasks to that partition as long as the dispatched tasks do not involve the I/O adapter. The examiner chose not to address this argument in the Answer, likely because there is no good response. The inherent stoppage of dispatch of tasks to a particular I/O adapter does not read on inhibiting dispatch of tasks to a logical partition, as recited in claim 9.

Appellant outlined in great detail in the Appeal Brief three fatal errors in the examiner’s position at p. 11 line 1 to p. 12 line 11. The examiner did not address any of the three fatal errors outlined in detail in the Appeal Brief. These three fatal errors are summarized below. First, instructing a logical partition to stop using one particular I/O adapter does not read on suspending a logical partition for the reasons discussed in detail in the Appeal Brief and above, namely, the logical partition could still receive tasks that do not require the I/O adapter. Second, the assumption that instructing the OS of the current partition to stop using a single I/O adapter necessarily means the partition control program will not issue ANY tasks to the partition is sheer assumption and speculation by the examiner. Third, even if the examiner could properly argue that Tarui discloses suspending a logical partition and inhibiting dispatch of tasks to that logical partition, the latter does not cause the former. In other words, the word “by” in the claim establishes a cause-effect relationship between the limitations in claim 9. The partition manager in claim 9 has the effect of suspending all of the plurality of logical partitions. How is this done? By inhibiting dispatch of tasks to all of the plurality of logical partitions and waiting until all pending tasks in all of the plurality of logical partitions are complete.

Even if Tarui could be properly construed to teach suspending a logical partition and inhibiting dispatch of tasks to that logical partition, Tarui absolutely does not teach suspending a logical partition by inhibiting dispatch of tasks to that logical partition. In Tarui, the partition control manager instructs the OS on the current partition to stop using the I/O adapter. This expressly teaches away from the cause-effect relationship expressly recited in claim 9, of suspending all of the plurality of logical partitions by inhibiting dispatch of tasks to all of the plurality of logical partitions and waiting until all pending tasks in all of the plurality of logical partitions are complete. The Examiner's Answer did not address ANY of these three fatal errors discussed in detail in the Appeal Brief and summarized above. In effect, the examiner has ignored and not addressed any of the arguments at p. 11 line 1 to p. 12 line 26. As a result, these fatal errors have not been refuted by the examiner, and stand to show the errors in the examiner's rejection of claim 9.

In addressing Appellant's arguments on p. 13 of the Appeal Brief, the examiner quotes some of the language from p. 13, then states:

In response, Tarui teaches the claimed suspending and thus resuming as discussed in above paragraphs.

Once again the examiner did not address the two fatal errors specifically outlined in the Appeal Brief. These are summarized here. First, the examiner's assumption that the logical partition is resumed is built upon the earlier faulty assumption that it was suspended in the first place. Thus we see the examiner's rejection collapse under the weight of its faulty assumptions. Appellant provided in the Appeal Brief detailed arguments that explain why instructing a logical partition to stop using an I/O adapter does not read on suspending the logical partition. Because the logical partition that was instructed to stop using an I/O adapter could perform numerous other tasks not related to the I/O adapter, the logical partition is not suspended by any reasonable interpretation of that term. Second, the examiner's rejection of this limitation lacks the same cause-effect

relationship required by the word “by” in this clause. In other words, even if Tarui can somehow be read to resume a logical partition and enable dispatch of tasks to the logical partition, Tarui does not resume all of the plurality of logical partitions by enabling dispatch of tasks to all of the plurality of logical partitions as recite in claim 9. Because the Examiner’s Answer did not address these two fatal errors, they stand to show the errors in the examiner’s rejection of claim 9.

For the many reasons given above, claim 9 is allowable over the combination of Day, Tarui and Kaneko, and appellant respectfully requests the examiner’s rejection of claim 9 under 35 U.S.C. §103(a) be reversed.

#### Claim 23

In addressing claim 23 in the Examiner’s Answer, the examiner quotes the Appeal Brief at p. 14 line 2 to p. 15 line 6. The examiner then attempts to justify the language “in a balancing manner” in the rejection, and concludes “the rebalance of resources is evident by attempting such that on the average the allocating of resources to certain partitions reaches their goals.” Appellant forcefully asserts that all the examiner’s language in the rejections and in the Examiner’s Answer are based on sheer assumption and speculation, and are not supported by any of the teachings of Day. Day includes nothing that reasonably reads on the limitation of “detecting when the I/O loop is unbalanced” in claim 23.

The Examiner’s Answer did not address any of Appellant’s arguments at p. 15 line 7 to p. 16 line 9 of the Appeal Brief. These arguments are summarized here. First, halting a single I/O resource in a single logical partition as taught in Tarui does not read on quiescing I/O resources (plural) as recited in claim 23. Second, Tarui has no teaching of an I/O loop. Third, the examiner’s reading of Tarui on steps (3) and (4) in claim 23 is inconsistent with their express wording because the halting of a single logical partition in Tarui cannot read on suspending multiple logical partitions as expressly recited in step (4)

of claim 23. Fourth, Tarui has no teaching of an I/O loop, and therefore cannot teach at least one resource in the I/O loop. Furthermore, Tarui does not teach or suggest rebalancing anything, much less rebalancing an I/O loop. The examiner's rejection effectively reads the limitation of I/O loop out of the claim. Because these arguments were not addressed in the Examiner's Answer, these arguments stand unrefuted by the Examiner, and thus show the errors in the examiner's rejection of claim 23.

In the Examiner's Answer, the examiner quotes the Appeal Brief at p. 16 lines 10-28. In response, the examiner states:

Appellant fails to set forth the deliberate definition of "I/O loop."  
Appellant fails to set forth the differences between Examiner's interpretation of "I/O loop" and Appellant's deliberate definition of "I/O loop." No where [sic] in the specification that [sic] the "I/O loop" is deliberately defined. Therefore, Appellant's argument is merely statements of alleged distinctions between the present invention and the prior arts teachings, rather than actual arguments with respect to the claimed subject matter and the prior arts teaching. As such, these arguments are found to be not persuasive.

The examiner's language above is fatal to the examiner's rejection. The examiner essentially admits a specific interpretation of "I/O loop" and assumes this interpretation is proper because the term I/O loop is not specifically defined in the specification or claims. If the term "I/O loop" were coined by Appellant, the examiner's position might have merit. However, I/O loops are very well-known in the art to be I/O resources arranged in a loop configuration. This is inherent in the plain meaning of the term "I/O loop." The examiner need not look any farther than the plain meaning of the claim language itself. By the examiner's language above, the examiner essentially admits reading the limitation "I/O loop" completely out of the claim. Can resources in a pool in Day read on I/O resources in an I/O loop? Clearly not. Can the resources in Kaneko read on I/O resources in an I/O loop? Again, clearly not. There are no loops of any kind in any of the cited references. Because the term "I/O loop" is clear on its face, and because the examiner has

not shown anything in any of the cited references that reads on any kind of loop, much less an I/O loop, the examiner's rejection of claim 23 is in error.

For the many reasons given above, the examiner's rejection of claim 23 is in error, and appellant respectfully request the examiner's rejection of claim 23 under 35 U.S.C. §103(a) be reversed.

### **CONCLUSION**

Claims 9 and 23 are addressed in this Appeal. For the numerous reasons articulated in the Appeal Brief and in this Reply Brief, appellant maintains the rejections of claims 9 and 23 are erroneous.

Appellant respectfully submits that the Appeal Brief and this Reply Brief fully respond to, and successfully contravene, every ground of rejection and respectfully requests that the final rejection be reversed and that all claims in the subject patent application be found allowable.

Respectfully submitted,

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